Name: Rachel Fischhoff Grade: 5 Date: Thursday, March 14, 2011

Groundworks—Get the Point

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| Lesson Sources: Groundworks, Algebraic Thinking, Grade 5 |
| Lesson Objectives: Students will be able to use their understanding of the features of coordinate graphs (axes, coordinates, points) to interpret scatterplots. |
| Standards: M(DSP)–5–1 **Interprets a given representation** (tables, bar graphs, circle graphs, or line graphs) toanswer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems. (State) |
| Multicultural Content: |
| Materials and Advanced Preparation: SmartBoard presentation, Get the Point packets |
| Prior Knowledge and Skills Needed: some familiarity with coordinate graphing |
| Key/New Vocabulary:  Axes: a line that helps us understand data on a graph  Coordinate: the numbers we use to identify a point on a graph  coordinate graph: graph that lets us see the relationship between two things  point: precise location |

Lesson Procedure: Part One

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| **Time** | **Teacher Actions** | **Student Learning Activities** | **Form of Assessment** |
| 1 min | **1. Connection**   * Mathematicians we have talked about how smart mathematicians are always think about representing their ideas and their thinking in multiple ways. We’ve talked about representing our ideas in words, in pictures, and in numerical expressions. * Today we are going to be thinking about one very important way mathematicians represent information—coordinate graphs. | Explain purpose of mini-lesson | Look for active listening |
| 10 min max | **2. The Teaching (The Giving of Information):**  Slide Two: What do we know about coordinate graphs? (Take a few ideas) (If they don’t come up, mention that it’s a grid, that there are **axes**, that we can call the axes the **x and y axes**, that the axes are like a scale that goes up in both directions, that there is an **origin point**.)  Slide Three: We can use coordinate graphs to measure almost any relationship. Age/height, month/amount of ice cream, grade/number of kids in your class. In this graph, we’re looking at the number of people in a family and the number of pets that family has. If I was going to plot a point to represent *my family* when *I was ten,* I would want to show a family with FOUR people and ONE dog.  (Plot point). I mark my family—four people and one pet—where *this line* and *this line* intersect.  Slide Four: Here is a set of points from a worksheet we are going to look at in one moment. Listen while I notice the information I can gain just from looking at one point…This point is at the intersection of 3 on the x axis and 6 on the y axis. This point shows me that there is a family with three pets and six people.  What can you notice about one of the other points on this graph? Turn and Talk to a partner about *this point*—what information does this point give you? How many people and how many pets are in this family? | * Share knowledge about graphing * Listen to new knowledge * T&T | * Information students offer * Listen in to T&Ts |
|  | **3. Have-A-Go (optional)**   * Now take a look at the worksheet we’ll be using today. Watch how I use the information in this graph to answer the first question. * Who can help me answer the second q? * Take a few minutes to complete these questions. * (check over answers orally) | How will students be actively involved?  By:   * Practicing the mini-lesson | * Walk around while students work * Check answers for understanding |
| **Anticipated Responses/Outcomes:**   * Some students will be able to interpret the graph easily * Some students may want to stay on the rug to hear more about how to work with the worksheet | | | |
|  | **4. The Link**  Today you will work independently to work through the remainder of this packet. If you have a question, quietly ask a teammate. If you still have a question, raise a quiet hand.  What is your job today? | **(Workshop Time)**   * Work through “Get the Point” packet | * Confer with students |
|  | **5. Closing (at the share)**  At share: share some answers  Hear about: what was challenging, what was easy, why are coordinate graphs useful? | * See left | * Collect packets to assess |
| **Anticipated Responses/Outcomes:**   * Some students may get through the whole packet * All students should complete 1-3 | | | |

**Reflections:**

How did the lesson plan work? What was effective? What did you learn? What would you change for tomorrow or the next time you will use this plan?